National Nanomanufacturing Network Newsletter

Volume 2 Issue 7- August 2009

The NNN Newsletter

The NanoBusiness Conference 2009

The National Nanomanufacturing Network will be exhibiting at the 8th Annual NanoBusiness Conference being held this year at McCormick Place in Chicago from September 8 - 10. With a list of over 70 speakers representing companies such as Applied Materials, CombiMatrix Corp., Hydropoint, Lux Research, and NanoPore, the conference promises to be a very exciting event and excellent networking opportunity.

- Review the Program
- Browse the Speakers

The NanoBusiness Alliance, host of the NanoBusiness Conference, is making a special offer to all NNN newsletter subscribers for a discounted registration fee of only **$299**.

- Register! (Code: ACAD)

We hope you'll take advantage of this opportunity and pass by our booth in September.

Regards,
Jeff Morse, Managing Director,
National Nanomanufacturing Network

Learn More about the National Nanomanufacturing Network

InterNano Redesign

This summer we have been cooking up a new look for InterNano, the information clearinghouse of the National Nanomanufacturing Network.

The new interface emphasizes our strengths and still provides one-click access to all the community tools and content areas of the site.

We are launching the new interface on September 8th, in conjunction with our exhibit at the NanoBusiness Conference. We hope you will find it a better, more usable InterNano.

Upcoming Events

August 26 - 28, 2009
NanoOEH2009

August 26 - 28, 2009
Nano Korea 2009

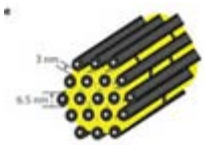
August 30 - September 3, 2009
COMS 2009

September 7 - 11, 2009
TNT 2009

September 8 - 10, 2009
NanoBusiness Conference 2009

Affiliated Centers

Nanostructured Cathodes for Improved Energy Storage in Rechargeable Batteries

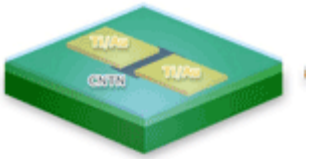


A promising technology for energy storage that has been studied for many years is the Lithium-Sulphur (Li-S) cell, which operates via a redox with sulphur as the positive electrode and lithium as the negative electrode. While the reaction potential is only 2.2 volts for Li-S cells—significantly less than that exhibited by conventional positive electrodes—the theoretical capacity is on the order of 1675 mAh/g, potentially enabling rechargeable batteries with much higher gravimetric or volumetric energy density. However, some issues have hindered the development of Li-S cells for practical battery applications. Ji, et. al., investigate the use of nanostructured sulphur/mesoporous carbon as a cathode material to overcome the challenges of Lithium-Sulfur cell technology, suggesting a path to the realization of high-capacity, long-cycle-life rechargeable batteries. More...

California and Massachusetts Lead Country in Nanotechnology Activities

The Woodrow Wilson Center's Project on Emerging Nanotechnologies (PEN) has issued an update to its 2007 NanoMetro Map data. Released on August 18, the data shows that California and Massachusetts are still the largest clusters of nanotechnology activity in the country. Since 2007, the map has grown from 800 entries to over 1200. Of those 1200, 955 are companies. More...

Aerosol Synthesis of Carbon Nanotube Networks for Thin Film Transistors



The thin film transistor (TFT) has been developed over the past two decades for applications in large area devices, most notably displays. The predominant technology has been hydrogenated amorphous silicon. Recent developments in organic TFTs over the past decade offer low-cost alternatives when combined with large

CHM
Center for Hierarchical Manufacturing
University of Massachusetts Amherst

Center for High-rate Nanomanufacturing

Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems

SINAM
CENTER FOR SCALABLE AND INTEGRATED NANOMANUFACTURING

Center for Integrated Nanotechnologies
CINT
Sandia
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nel
innovation & productivity

Recently Published

From Our Affiliates

Robust and Responsive Dendrimer-Gold Nanoparticle Nanocomposites via Dithiocarbamate Crosslinking
Advanced Materials 21(22): 2323+

Hydrophobicity of Perfluoroalkyl Isocyanate Monolayers on Oxidized Aluminum Surfaces
Langmuir 25(12): 6834-6840

Magnetic Transitions in Ultra-Small Nanoscopic Magnetic Rings: Theory and Experiments
Physical Review B 79(18): 184409

A Model-Based Methodology for On-Line Quality Control

area printing and fabrication methods. Moreover, with a new emphasis on large area, flexible substrates for emerging applications--such as flexible displays and e-paper—low -temperature, low-cost, large-area processes are gaining significant momentum. More...

Read more on InterNano

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